Exhibit G

(JPMC Exhibit 6)

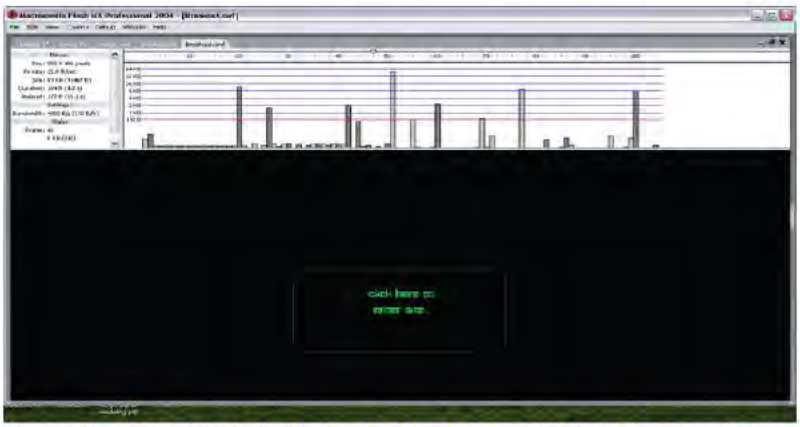
PART 2 OF 2

'811 Claim 4	Reference/Combination
	slowly: [¶] • If you need to provide intense or complex animation, experiment with changing the quality setting of the content. The default quality setting is Medium. [¶] To change the quality setting in Flash MX Professional 2004, select File > Publish Settings, and select the HTML tab. Select a quality setting from the Quality pop-up menu. [¶] Because changing the quality setting might noticeably affect the visual quality of the Flash Lite content, make sure to thoroughly test the SWF file. [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 19] Device speed and frames per second [¶] If the project contains static images, it's not likely that the device processor speed will be an issue. The complexity of Flash requires some important trade-offs when developing content for mobile phones. Until mobile phones have faster processors and there are improvements to other internal components, you must make adjustments to provide an experience that does not appear sluggish to users; otherwise, they won't use the application. [¶] Try to avoid full-screen wipes, fades, and animations. Remember that updating many pixels at a time can be slow, depending on the content. The performance of your Flash application depends on the number of open applications, available phone memory, processor speed, and screen resolution. [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 48] To create a Flash Lite 1.1 compatible SWF file: [¶] 1. In Flash MX Professional 2004, create a new document and name it FlashLiteTest.fla. [¶] 2. Select File > Publish Settings, and then the Flash tab. In the Version pop-up menu, select Flash Lite 1.1. Click OK. [¶] 3. From the Property inspector select the Size button, and change your document properties so that width = 240, height = 266, and Frame Rate = 15. Click OK. Make sure to use the appropriate frame rate on the actual devices. [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 57] The development kit includes a variety of sample files (FLA and SWF files) that demonstrate many of the concepts and applications that are described in this document. These examples are included to help you create content for mobile phones. The files include capabilities examples, processor detectors, and data-driven examples. Be sure to view the readme.txt file in the folder associated with each sample file.

'811 Claim 4	Reference/Combination
	The Flash Player further monitors RAM size and RAM availability, evidenced by for example setting maximum memory sizes, detecting out-of-memory errors and buffer overruns, and determining the memory used and remaining. [*Flash MX 2004 Using Flash*, p. 280] Buffer overrun protection prevents the intentional misuse of external files in a Flash document to overwrite a user's memory or insert destructive code such as a virus. This prevents a Flash document from reading or writing data outside the document's designated memory space on a user's system. Buffer overrun protection is enabled automatically. [*Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, p. 23] Set the run-time memory available to Flash Lite movies running in the i-mode HTML simulator. [*Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, pp. 41 – 42] This appendix lists the possible information, warning, and error messages you might encounter when creating movies for Flash Lite for i-mode. […] SWFS033 [¶] Not enough memory to perform operation. [¶] The Flash player was unable to get enough memory to finish the operation [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 33] The GetFreePlayerMemory() function returns the amount of memory, in kilobytes, currently available to Flash Lite. […] The GetTotalPlayerMemory() function returns the total amount of memory, in kilobytes, allocated to Flash Lite. Characteristics indicative of the mobile device include display width and display height (stage size). [Perry] These templates take the guess work out of developing Macromedia Flash content for specific platforms. They set the correct stage size, load a full-size image of the specific device in a guide layer, and preset the

'811 Claim 4	Reference/Combination
	correct Flash publishing settings. All you need to do is to create the content based on the development kit recommendations for each platform. [*Flash MX 2004 Getting Started with Flash*, p. 49] Configuring document properties is a common first step in authoring. You can use the Property inspector to specify settings that affect the entire application, such as the frames per second (fps) playback rate, and the Stage size and background color. [¶] If the Property inspector isn't open, select Window > Properties. [¶]  Characteristics indicative of the mobile device include color depth (pixel depth). [*Flash MX 2004 Using Flash*, p. 317] Format selects a color depth. Options are black-and-white; 4-, 8-, 16-, or 24-bit color; and 32-bit color with alpha (transparency). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004

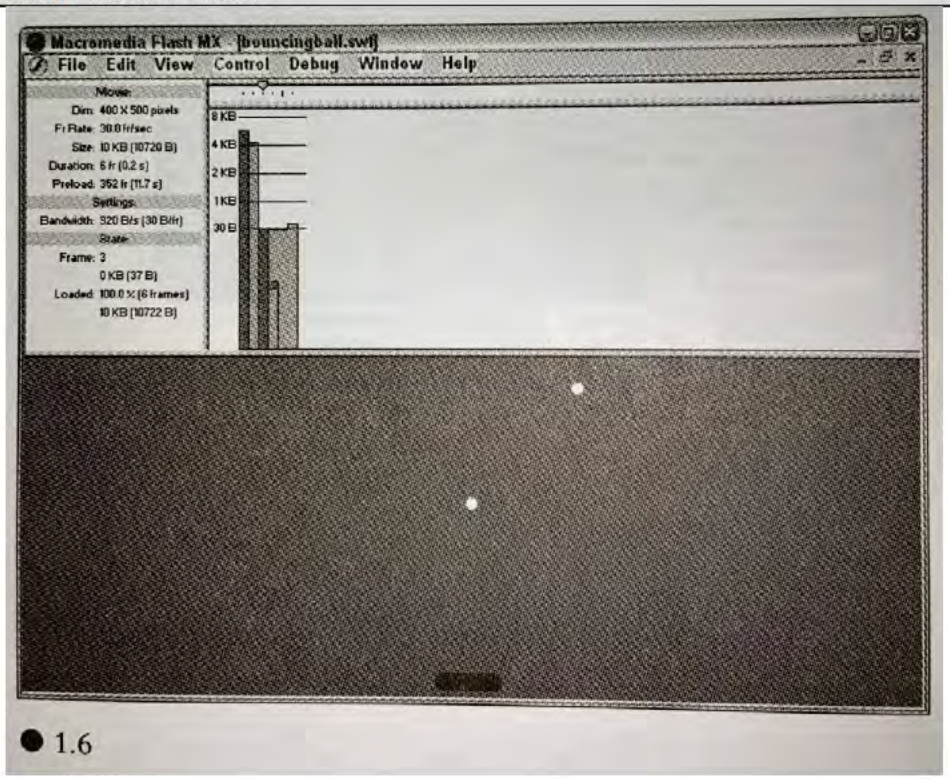
'811 Claim 4	Reference/Combination
	system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

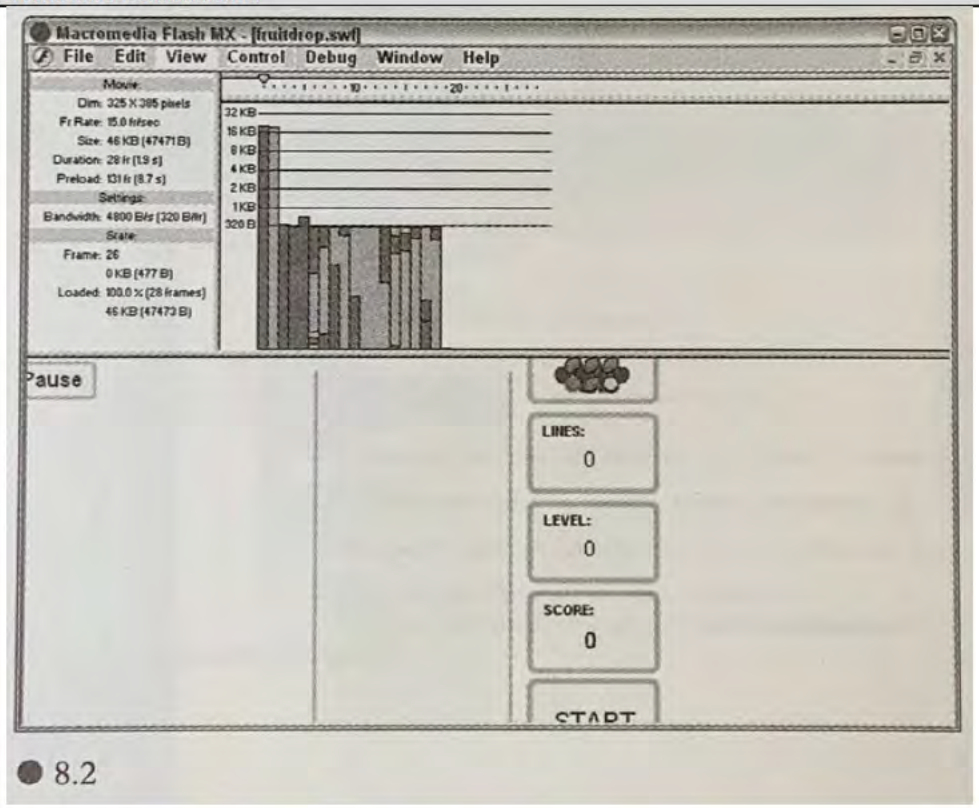
'811 Claim 5	Reference/Combination
5[a] The medium of claim 4, wherein the monitored resources include processor usage, RAM usage and network usage.	The Flash MX Professional 2004 system discloses this limitation.  Screenshot of Flash MX Professional 2004 showing RAM and/or network usage. For example, Flash MX Professional 2004 monitors processor usage. See above disclosure of simulating processor speed and availability. Simulating these characteristics inherently requires monitoring usage. For example, Flash MX Professional 2004 monitors RAM usage. See above disclosure of simulating RAM size and availability. Simulating these characteristics inherently requires monitoring usage. For example, the Bandwidth Profiler in Flash MX Professional 2004 monitors bandwidth usage (network usage). [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶]

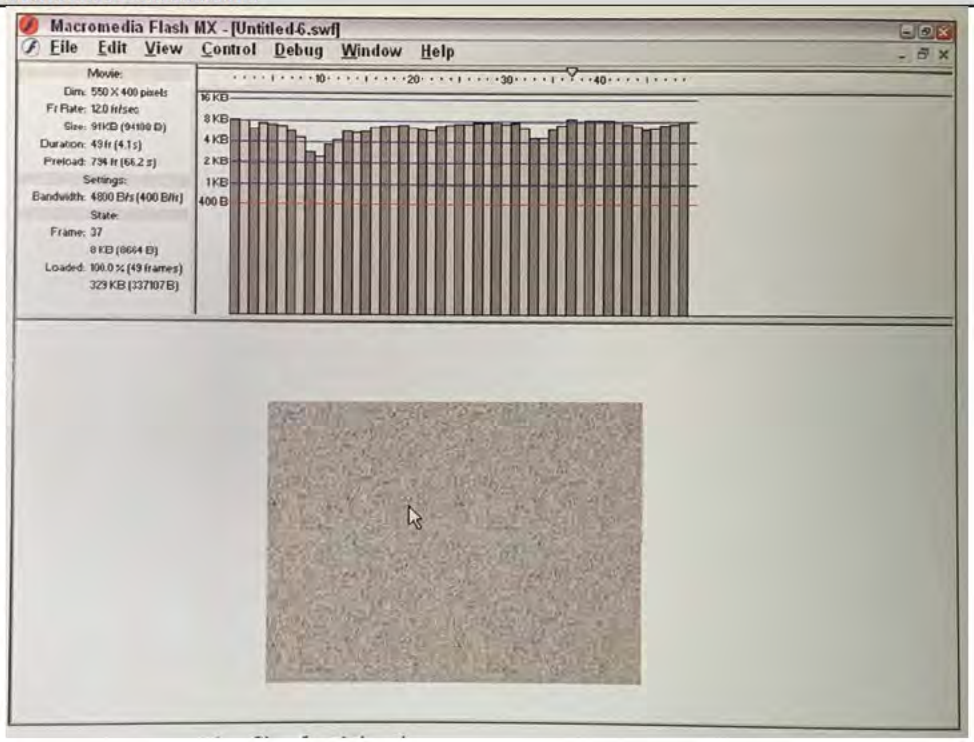
'811 Claim 5	Reference/Combination
	To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶]

'811 Claim 5	Reference/Combination
	When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶] To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶]

'811 Claim 5	Reference/Combination
	Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 5	Reference/Combination
	 [David, p. 98]

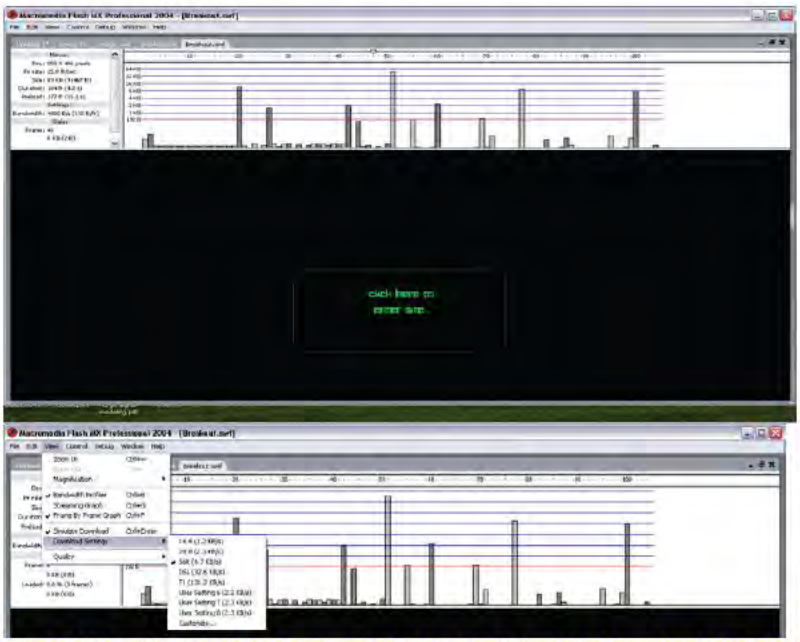
'811 Claim 5	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

'811 Claim 5	Reference/Combination
	 Moreover, concerns about mobile devices' limited CPU, memory, and network speeds pervade the Flash MX Professional 2004 manuals' discussions of developing Flash content for mobile devices. [*Flash MX 2004 Using Flash*, p. 390]

'811 Claim 5	Reference/Combination
	In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. [*Flash MX Professional 2004 Flash Lite User Guide*, p. 5] Macromedia has created a new Flash Player version, called Macromedia® Flash™ Lite, that runs on a new class of consumer mobile devices. This format is designed to run optimally on devices with limited resources (memory, processor speed, display area). […] With Macromedia Flash MX Professional 2004, you can author, preview, publish, and validate content for Flash Lite. [*Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, p. 10] There are limitations on file size and run-time memory usage for Flash Lite movies running on i-mode phones. There is a prescribed limit on how large a web page can be, whether it includes Flash Lite movies or not. For 505i phones, this limit is 20KB. Full details can be found at the DoCoMo website (see Appendix D, "References," on page 47). This limit applies to an i-mode page's HTML, SWF content, and all graphic images combined. Web pages larger than this limit cannot be downloaded to an i-mode phone and no error message appears. This limitation also applies to Flash Lite movies played directly in the browser without being embedded in an i-mode compatible HTML file. [¶] The run-time memory available to Flash Lite movies running on i-mode phones is limited and may vary from model to model. Generally, for the 505i phones, this limit is not less than 200KB. Because Flash MX Professional 2004 does not provide a mechanism for checking a phone's run-time memory consumption, Macromedia strongly recommends that you test all content on actual i-mode phones. [*Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, p. 11] CPU speed in i-mode phones varies from model to model, and is typically much slower than current desktop computers. Therefore, it is extremely important to consider movie performance and optimization from the beginning of each project. The optimization recommendations for creating any Flash movie also apply to Flash Lite movies created for i-mode phones. For the latter, their importance is amplified. [¶] Note: In Flash MX Professional 2004, you can find tips on optimizing Flash movies—select Help > Using Flash -> Search

'811 Claim 5	Reference/Combination
	and enter optimizing movies in the keyword search text box. [¶] If you follow some simple guidelines, as described in this document, to author your movies, you can create rich and compelling content despite CPU limitations. [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 17] Flash Lite generally uses vector graphics to define content, which can tax a phone's CPU when rendering complex graphics and animations. In general, the more vectors that are manipulated on the Stage, the more CPU power is required. This is also true for Flash movies delivered on desktop computers. However, a mobile phone is far less powerful than desktop computer, so you should avoid taxing the CPU. [¶] When creating content for mobile phones, it is sometimes better to use bitmaps instead of vectors because they require less CPU power to animate. For example, a road map of a large city would have too many complex shapes to scroll and animate well on a mobile phone if it were created as a vector graphic; a bitmap would work much better. [¶] Using bitmaps produces larger files than using vector images, so take care during development to find the right balance of CPU versus file size and runtime memory requirements. Because of mobile phones' smaller screens, slower data transmission speeds, limited memory, and slower CPU speeds, you should take extra care in planning and testing. [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 17] Device speed and frames per second [¶] If the project contains static images, it's not likely that the device processor speed will be an issue. The complexity of Flash requires some important trade-offs when developing content for mobile phones. Until mobile phones have faster processors and there are improvements to other internal components, you must make adjustments to provide an experience that does not appear sluggish to users; otherwise, they won't use the application. [¶] Try to avoid full-screen wipes, fades, and animations. Remember that updating many pixels at a time can be slow, depending on the content. The performance of your Flash application depends on the number of open applications, available phone memory, processor speed, and screen resolution.

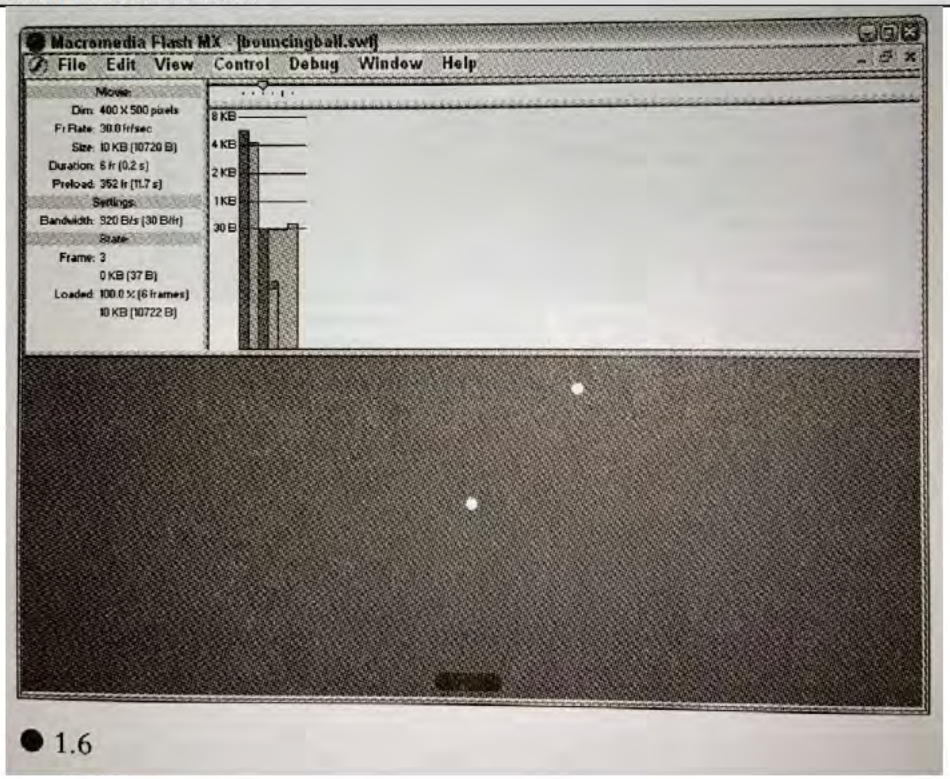
'811 Claim 5	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

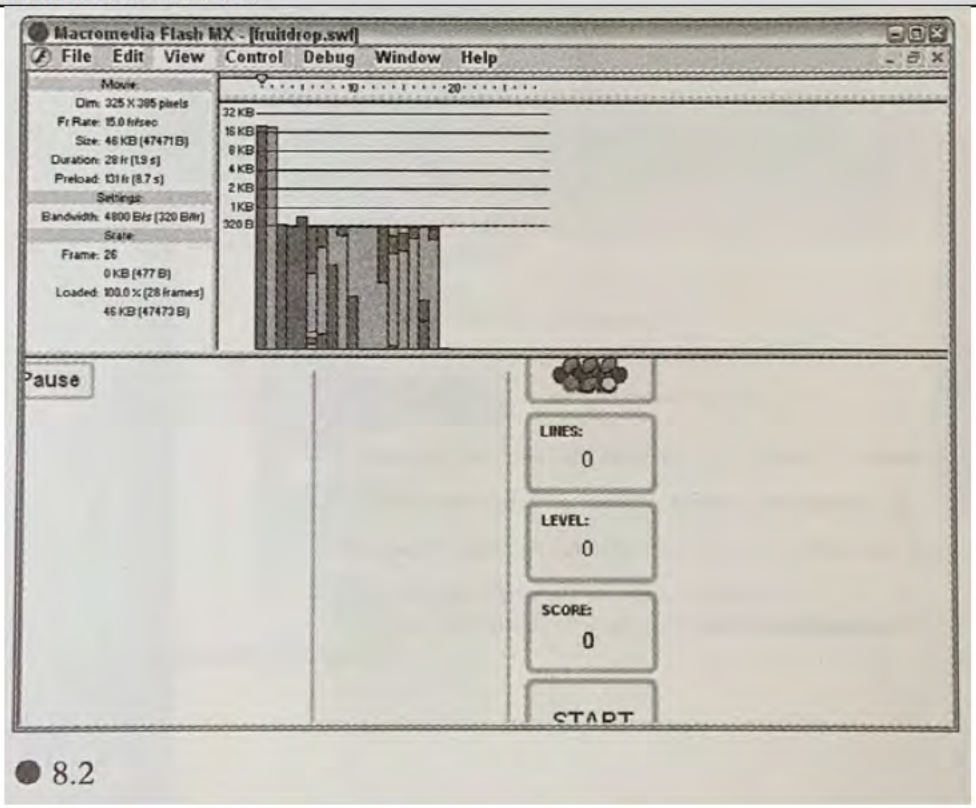
'811 Claim 8	Reference/Combination
8[a] The medium of claim 5, wherein the instructions simulate one or more network events that occur when interacting with a wireless network.	The Flash MX Professional 2004 system discloses this limitation.  Flash MX Professional 2004 screenshot showing "Simulate Download" in the Bandwidth Profiler. For example, the Bandwidth Profiler in Flash MX Professional 2004 simulates a download, modem speed, a web connection (a network connection state), compression, streams, typical Internet performance (bandwidth), and additional data requests, network events that occur when interacting with a wireless network.

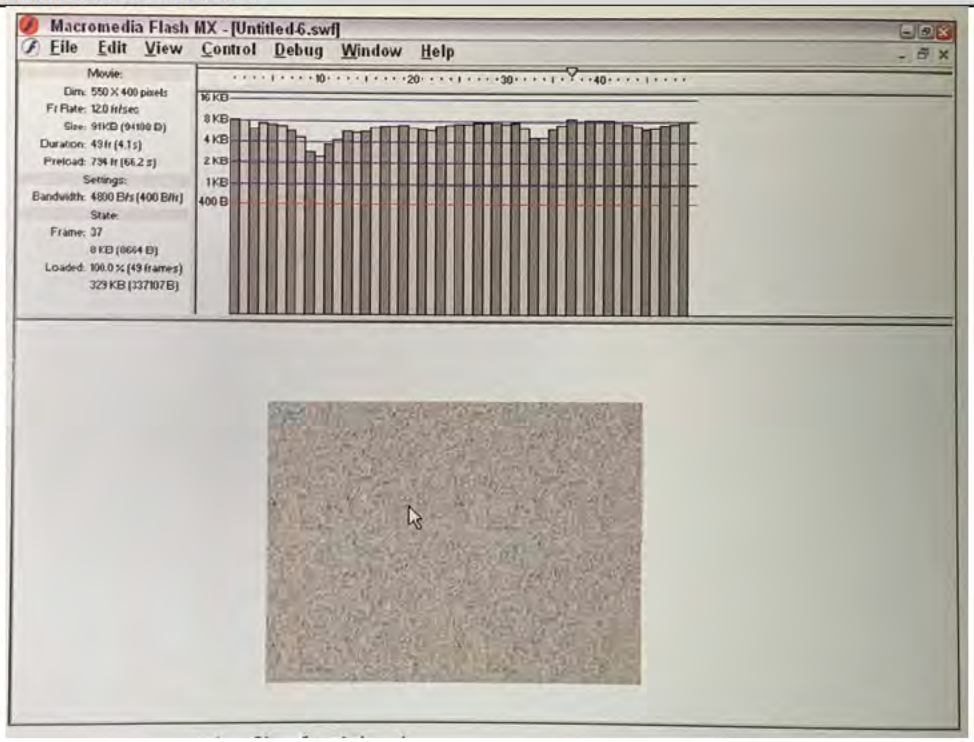
'811 Claim 8	Reference/Combination
	[*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]

'811 Claim 8	Reference/Combination
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]

'811 Claim 8	Reference/Combination
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 8	Reference/Combination
	 [David, p. 98]

'811 Claim 8	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

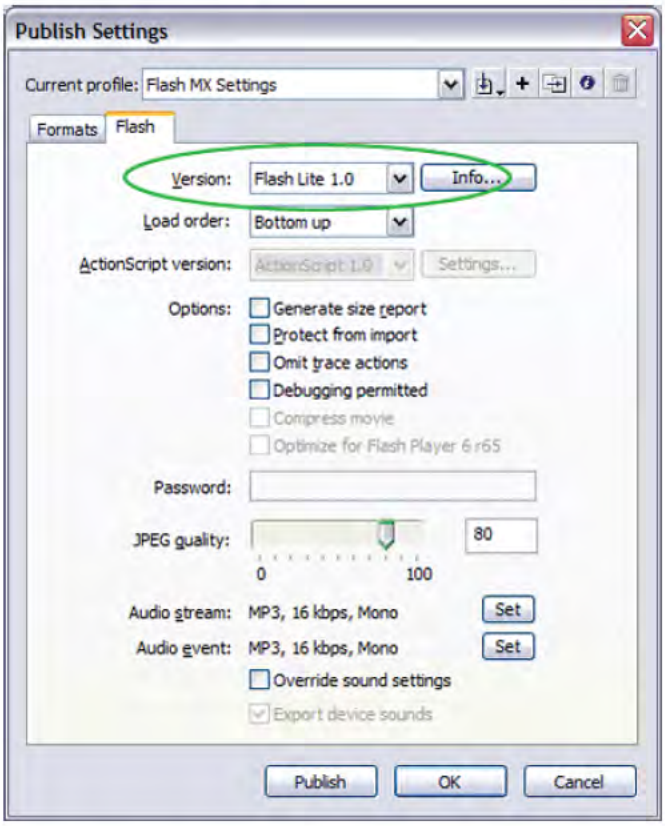
'811 Claim 8	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

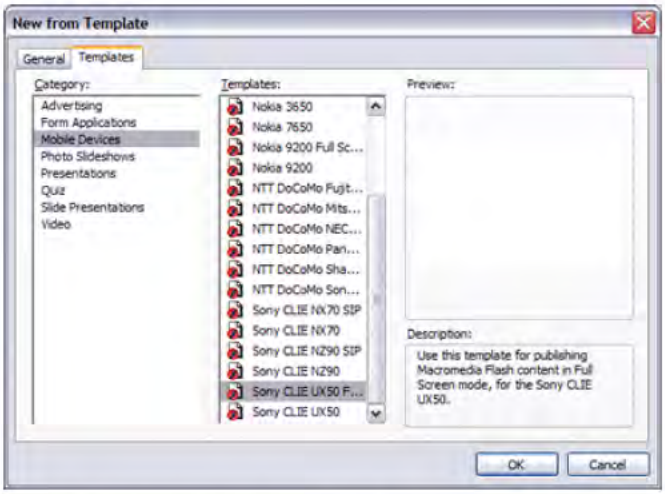
'811 Claim 8	Reference/Combination

'811 Claim 9	Reference/Combination
9[a] A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:	The Flash MX Professional 2004 system discloses this limitation. See disclosures for identical claim limitation 1[a] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
9[b] display a list of a plurality of mobile devices from which a user can target a particular device;	The Flash MX Professional 2004 system discloses this limitation. For example, Flash MX Professional 2004 displays a list of a plurality of mobile device models from which a user can select, including Nokia 3650, Nokia 9200, Sony CLIE UX50, and iPAQ 5440. Each mobile device includes characteristics indicative of the device such as stage size (screen size), frame rate, a full-size image of the specific device, and the correct Flash publishing settings, including the Flash Player version. Characteristics indicative of the targeted mobile device are modeled when testing the Flash application. [*Flash MX 2004 Using Flash*, p. 390] Flash content is viewable across multiple browsers, platforms, and mobile phones. You can author the following: • High-quality animations • Games • Rich-media custom user interfaces for devices and desktop systems • Immersive e-commerce and business solutions [¶]

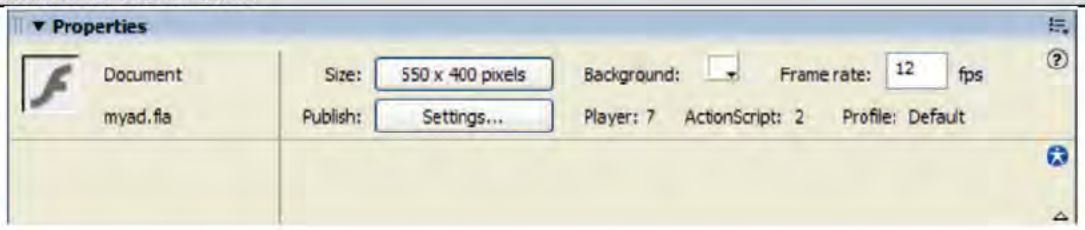
'811 Claim 9	Reference/Combination
	In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. [¶] The mobile device templates let you create content for many mobile devices available today. Use the device skins in the templates to preview your content as it will look on the device. [¶] Note: The skins are on guide layers and won't export with your content or appear at runtime. [¶] For more information on authoring Flash files for mobile devices, please visit the Macromedia Mobile Devices site at www.macromedia.com/devnet/devices/. [*Flash MX 2004 Getting Started with Flash*, p. 6] Updated templates[:] Flash includes updated templates for creating presentations, e-learning applications, advertisements, mobile device applications, and other commonly used types of Flash documents. For more information, see "Using templates" in Using Flash Help. [*Flash MX 2004 Getting Started with Flash*, p. 11] The Start page provides easy access to your most frequently used actions, either at the start of a session or whenever no open documents are in the application window. [¶] The Start page contains the following areas: [¶] Open a Recent Item lets you view your most recent documents. [¶] Open displays the Open File dialog box. [¶] Create New offers a list of file types from which to choose, such as ActionScript or document, for a quick way to open a new file. [¶] Create from Template lists the templates most commonly used to create new documents and allows you to select from the list. [Perry] New Features for Mobile and Devices Developers [¶] Both products offer the new mobile devices templates, however, only Macromedia Flash MX Professional 2004 provides functionality specific to mobile device development: Mobile devices templates MIDI ring tone support Test device emulators Alias text support [¶]

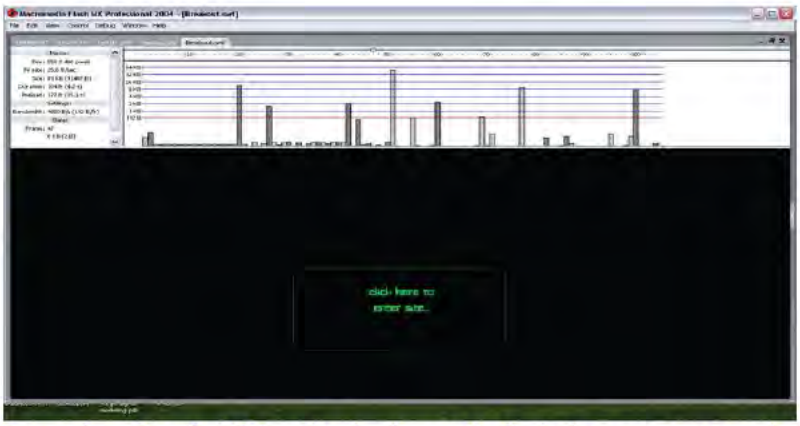
'811 Claim 9	Reference/Combination
	In the following section, I'll give you a little more information about these new features and what they mean to you. [¶] Authoring Content for Devices [¶] Exporting Content for Various Versions of Macromedia Flash Player [¶] When authoring for mobile devices, you need to use the correct Macromedia Flash publish settings based on the Macromedia Flash Player requirements of your target device. For more information on some of the devices that play Macromedia Flash content, refer to the Mobile and Devices Developer Center for a list of devices and content development kits for each. [¶] To customize your Macromedia Flash publish settings, you can select an option from the Flash tab of the Publish Settings window. You can access this window in three different ways: Select File > Publish Settings. Press the Settings button on the Property inspector with the Stage selected. Use a keyboard shortcut: Control-Shift-F12. [¶]

'811 Claim 9	Reference/Combination
	 Figure 2. Macromedia Flash publish settings. [¶]

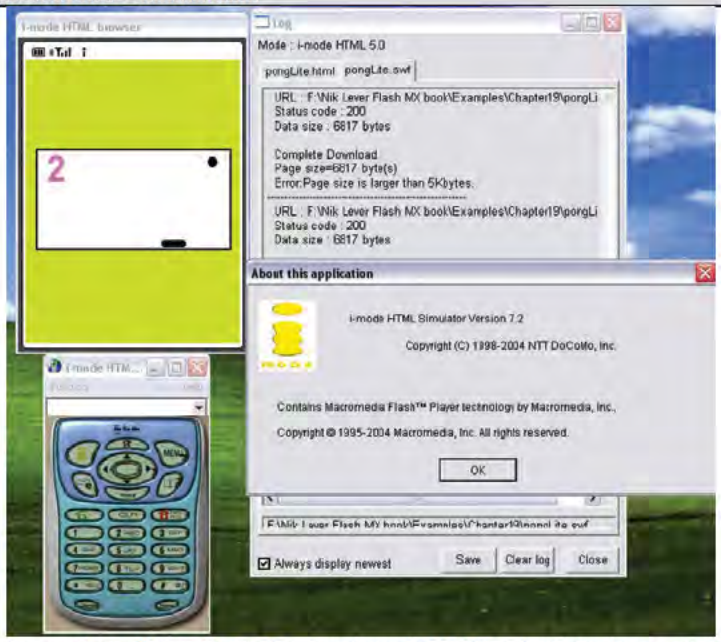
'811 Claim 9	Reference/Combination
	If you're using the built-in templates for devices, then Flash presets the Flash Player publish settings for each device. However, if you're not using the templates, then you'll need to be ensure that you customize the settings for your device. [¶] The only setting you need to change is the Version setting. Select the proper version of Macromedia Flash Player in the pop-up menu. The rest of the settings are optional and you can refer to the Flash MX Professional 2004 Help panel for additional information on them. […] Device Templates [¶] New to Macromedia Flash MX Professional 2004 and Macromedia Flash MX 2004 are 22 templates you can use to create content for all of the currently supported mobile devices. You can access them from the Flash start page or by selecting File > New. Click the Template tab in the New from Template dialog box (Figure 6) and select Mobile Devices in the Category pane. [¶]  Figure 6. Mobile Devices templates. [¶]

'811 Claim 9	Reference/Combination
	These templates take the guess work out of developing Macromedia Flash content for specific platforms. They set the correct stage size, load a full-size image of the specific device in a guide layer, and preset the correct Flash publishing settings. All you need to do is to create the content based on the development kit recommendations for each platform. You can find content development kits for each platform in the Macromedia Mobile and Devices Developer Center. [¶] For example, if you open up the iPAQ 5440 Full Screen template, here's what you will see: [¶]  Figure 7. iPAQ 5440 Full Screen template opened in the authoring environment. [¶] Be sure to use these templates when creating content for mobile devices—they'll definitely save you time. [*Flash MX 2004 Getting Started with Flash*, p. 49]

'811 Claim 9	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
9[c] model one or more characteristics indicative of the targeted mobile device;	The Flash MX Professional 2004 system discloses this limitation. For example, Flash MX Professional 2004 displays a list of a plurality of mobile device models from which a user can select, including Nokia 3650, Nokia 9200, Sony CLIE UX50, and iPAQ 5440. Each mobile device includes characteristics indicative of the device such as stage size (screen size), frame rate, a full-size image of the specific device, and the correct Flash publishing settings, including the Flash Player version. Characteristics indicative of the targeted mobile device are modeled when testing the Flash application. See disclosures for claim limitation 9[b] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

'811 Claim 9	Reference/Combination
9[d] monitor utilization of a plurality of resources over time as the application is running;	The Flash MX Professional 2004 system discloses this limitation. See disclosures for identical claim limitation 1[f] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
9[e] display simultaneously two or more graphical images of the application's resource utilization as it is running, wherein each graphical image relates to a different resource and is synched in time as the application is running;	The Flash MX Professional 2004 system discloses this limitation.  Screenshot of Bandwidth Profiler simultaneously displaying screen usage and network usage.

'811 Claim 9	Reference/Combination



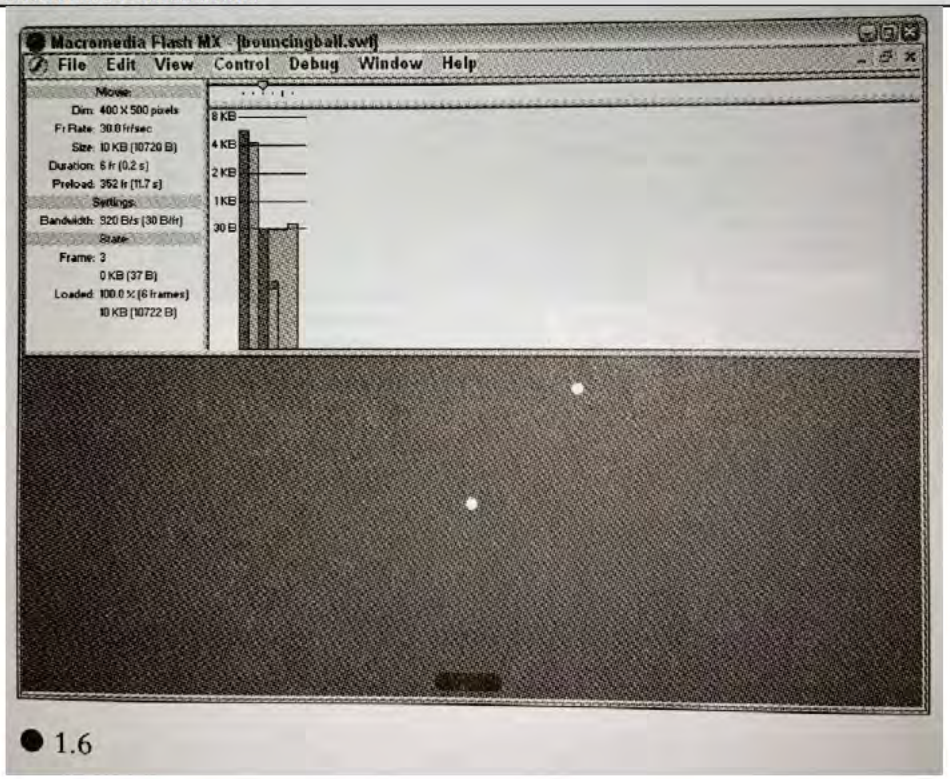
Screenshot of NTT DoCoMo, Inc. i-mode HTML Simulator in a separate display showing screen and network usage. It can display simultaneously with the Bandwidth Profiler.

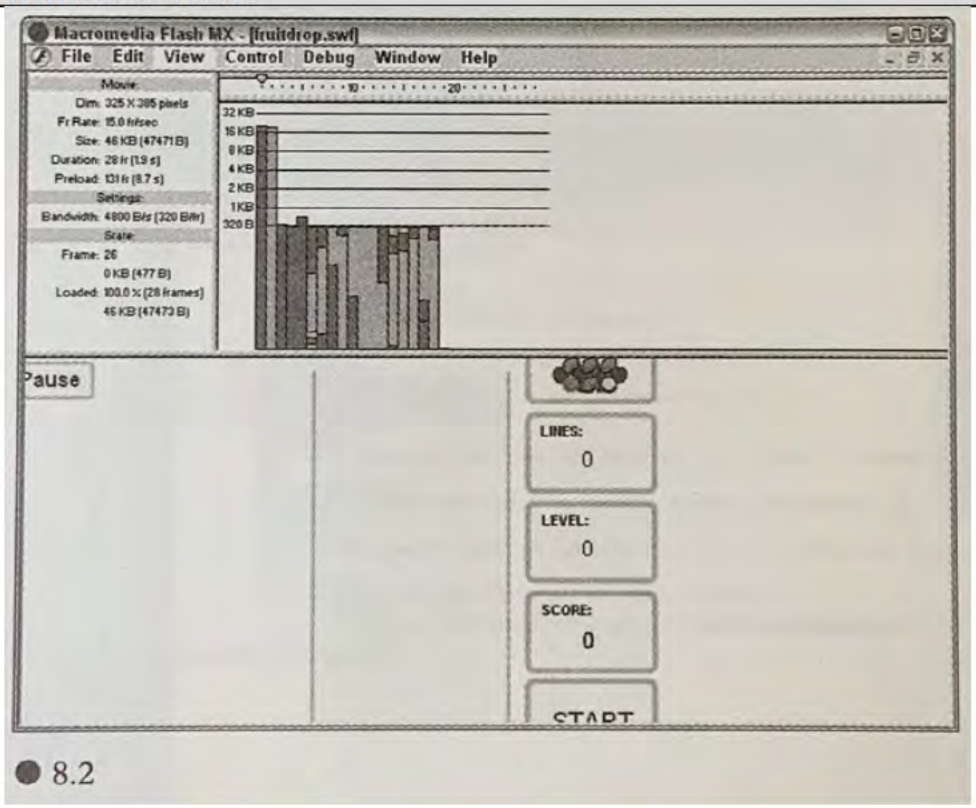
For example, the Bandwidth Profiler in Flash MX Professional 2004 displays simultaneously a bar chart of the Flash application's bandwidth utilization and a Flash Player window of the Flash application's screen utilization as is running. The bar chart includes a timeline with a caret indicating the current frame, and the Flash Player window displays the screen usage at the current frame, so they are synched in time as the Flash application is running.

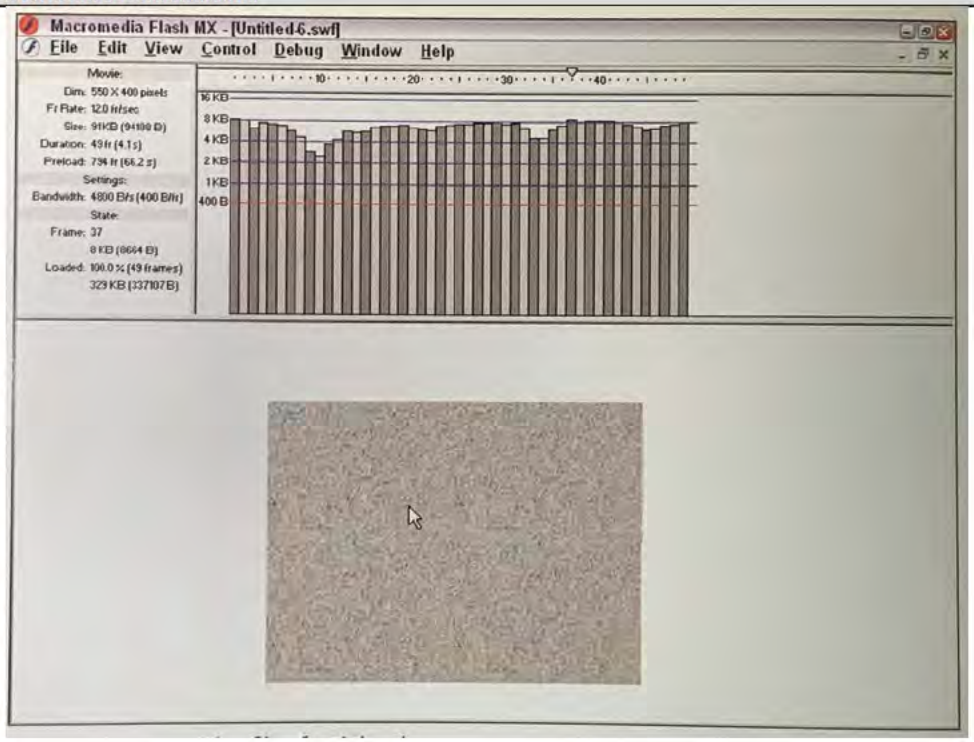
'811 Claim 9	Reference/Combination
	[*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the

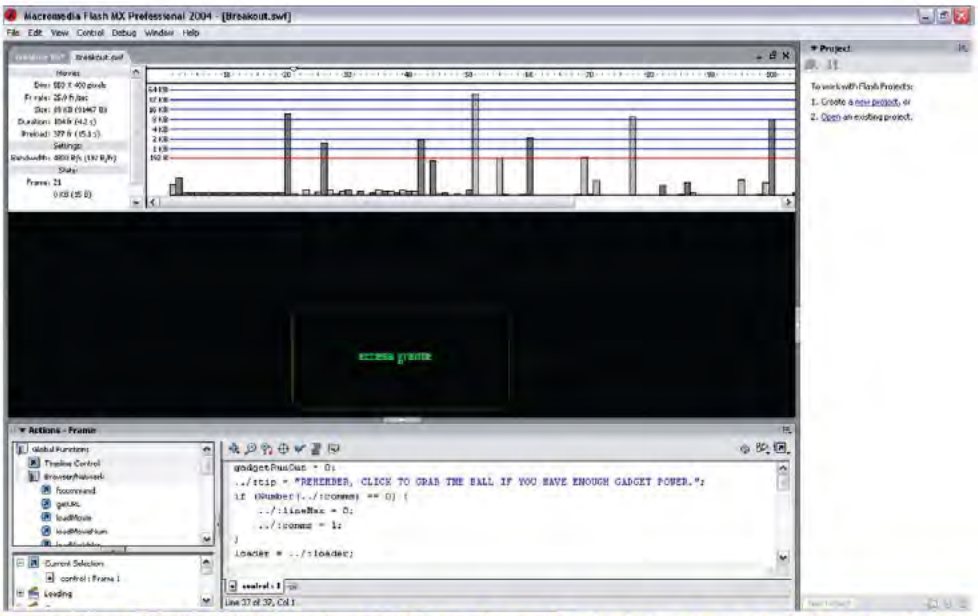
'811 Claim 9	Reference/Combination
	settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For

'811 Claim 9	Reference/Combination
	more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶] To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 9	Reference/Combination
	 [David, p. 98]

'811 Claim 9	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

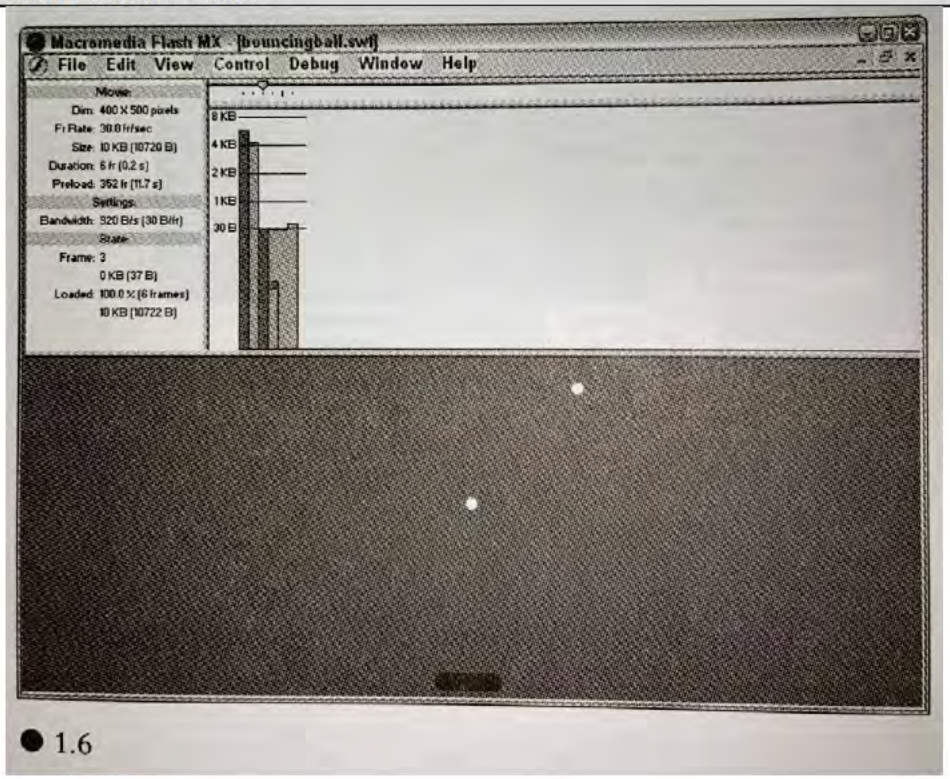
'811 Claim 9	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

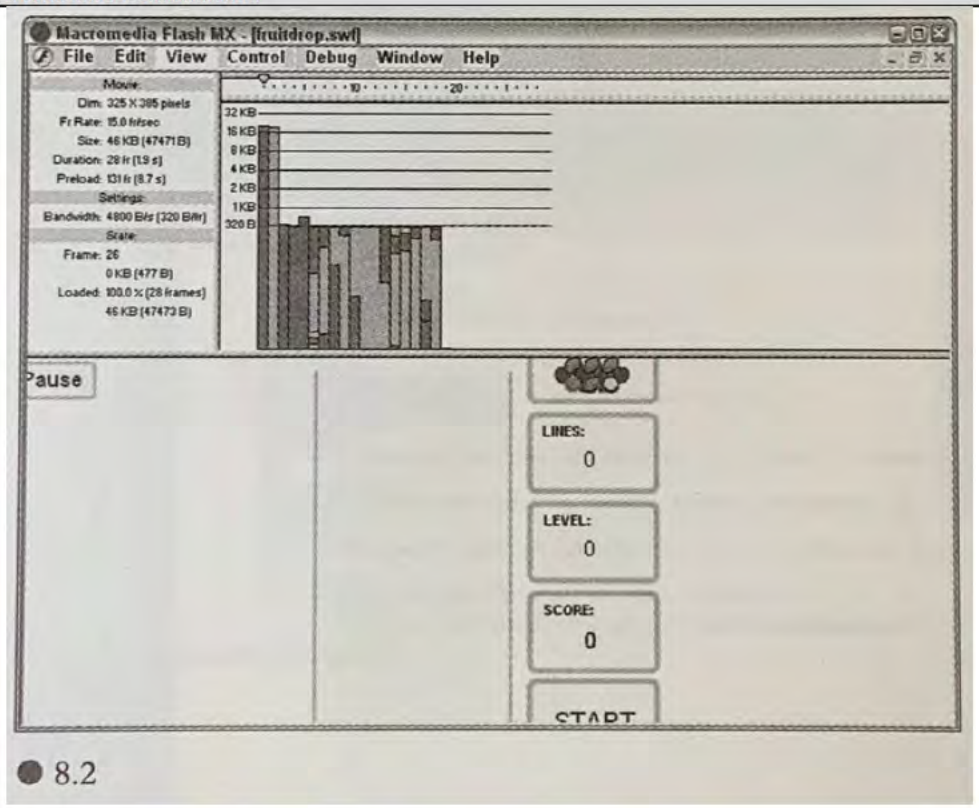
'811 Claim 9	Reference/Combination
9[f] identify one or more functions of the application responsible for utilization of a specific displayed resource at a given time.	The Flash MX Professional 2004 system discloses this limitation.  Screenshot of Flash MX Professional 2004 interface with "Actions – Frame" window showing the state of the Flash application at frame 21, including an ActionScript script, and indicating the use of bandwidth per frame of the application.

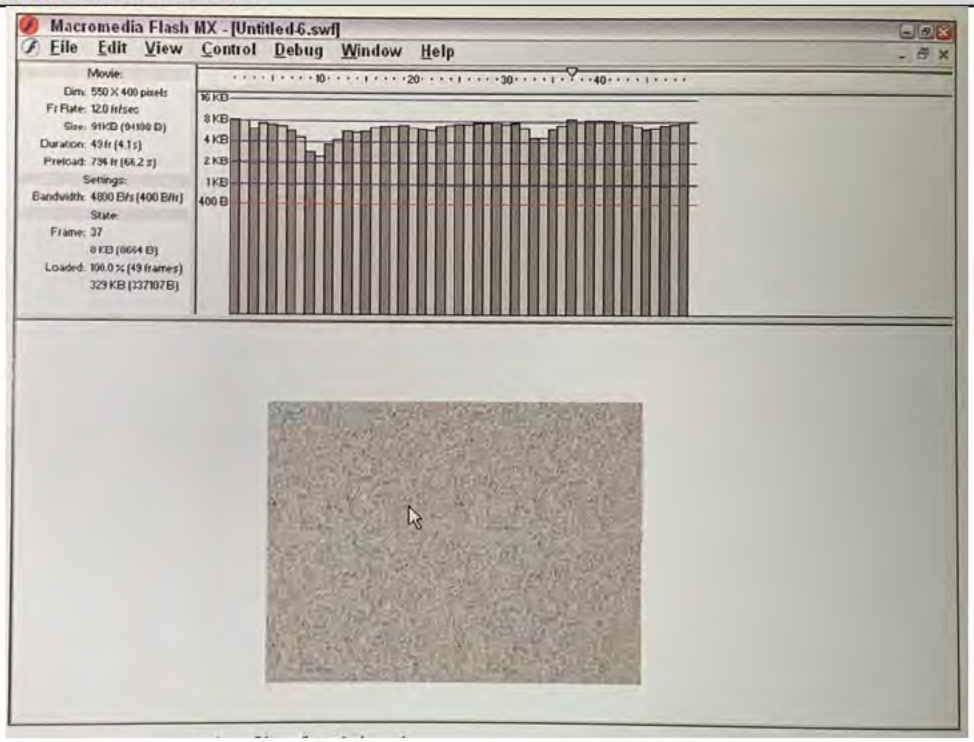
'811 Claim 9	Reference/Combination
	For example, the Bandwidth Profiler in Flash MX Professional 2004 identifies the ActionScript, symbols, function calls, and graphical assets (functions of the application) responsible for the utilization of the displayed bandwidth at a frame (a given time) of the Flash application. [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶]

'811 Claim 9	Reference/Combination
	To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file

'811 Claim 9	Reference/Combination
	opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶] To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 9	Reference/Combination
	 [David, p. 98]

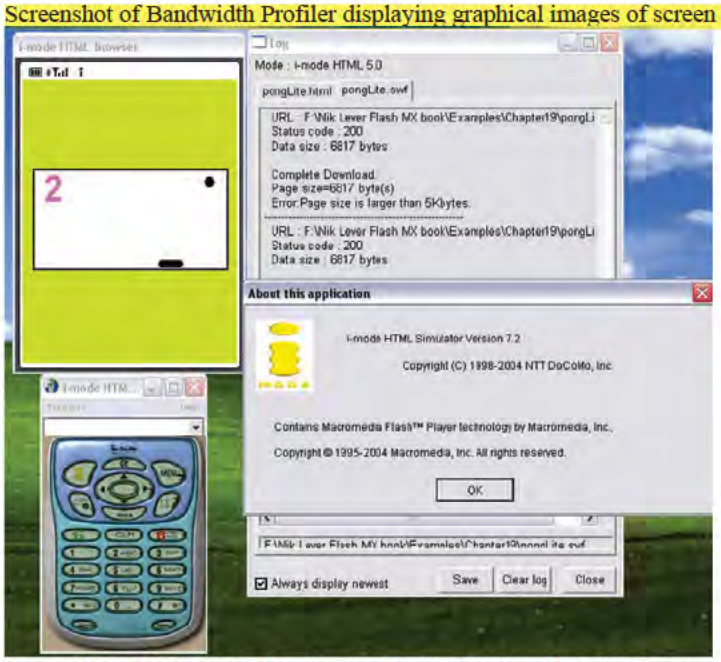
'811 Claim 9	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

'811 Claim 9	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

'811 Claim 9	Reference/Combination

'811 Claim 22	Reference/Combination
22[a] A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:	The Flash MX Professional 2004 system discloses this limitation. See disclosures for identical claim limitation 1[a] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
22[b] simulate one or more characteristics indicative of the mobile device; wherein the one or more characteristics indicative of the mobile device include at least one of processor type, processor speed, storage access speed, RAM size, storage size, display width, display height, pixel depth, processor	The Flash MX Professional 2004 system discloses this limitation. See disclosures for substantively identical claim limitation 4[a] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

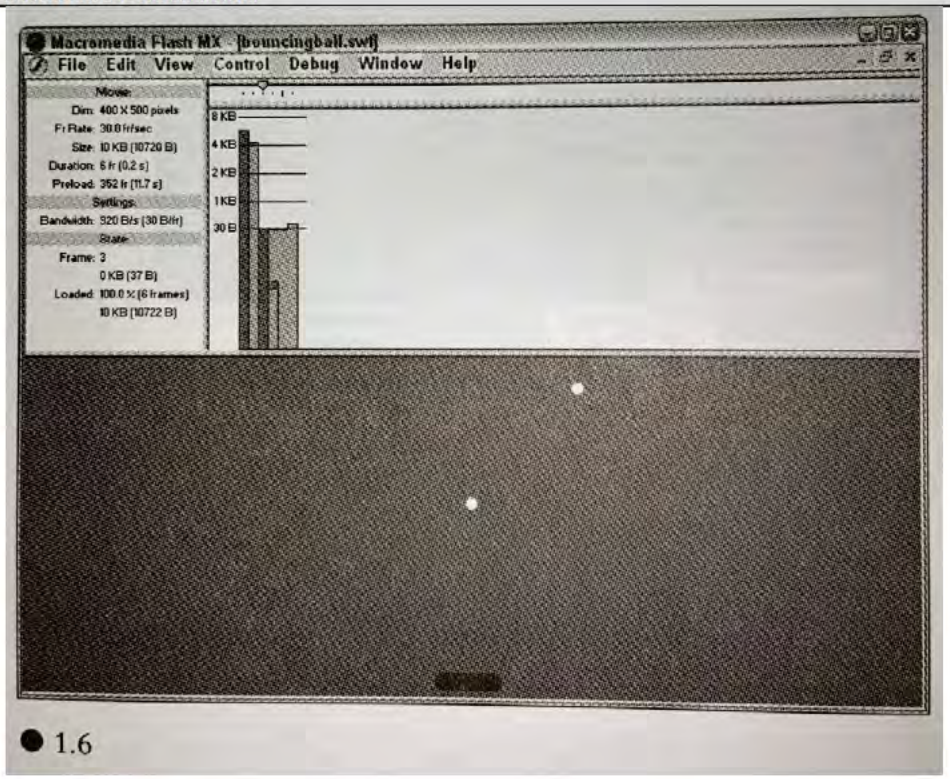
'811 Claim 22	Reference/Combination
availability, RAM availability or storage availability	
22[c] monitor utilization of a plurality of resources over time as the application is running, wherein the monitored resources include at least one of processor usage and RAM usage;	The Flash MX Professional 2004 system discloses this limitation. See disclosures for claim limitation 1[f] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
22[d] display one or more graphical images of the application's resource utilization;	The Flash MX Professional 2004 system discloses this limitation. 

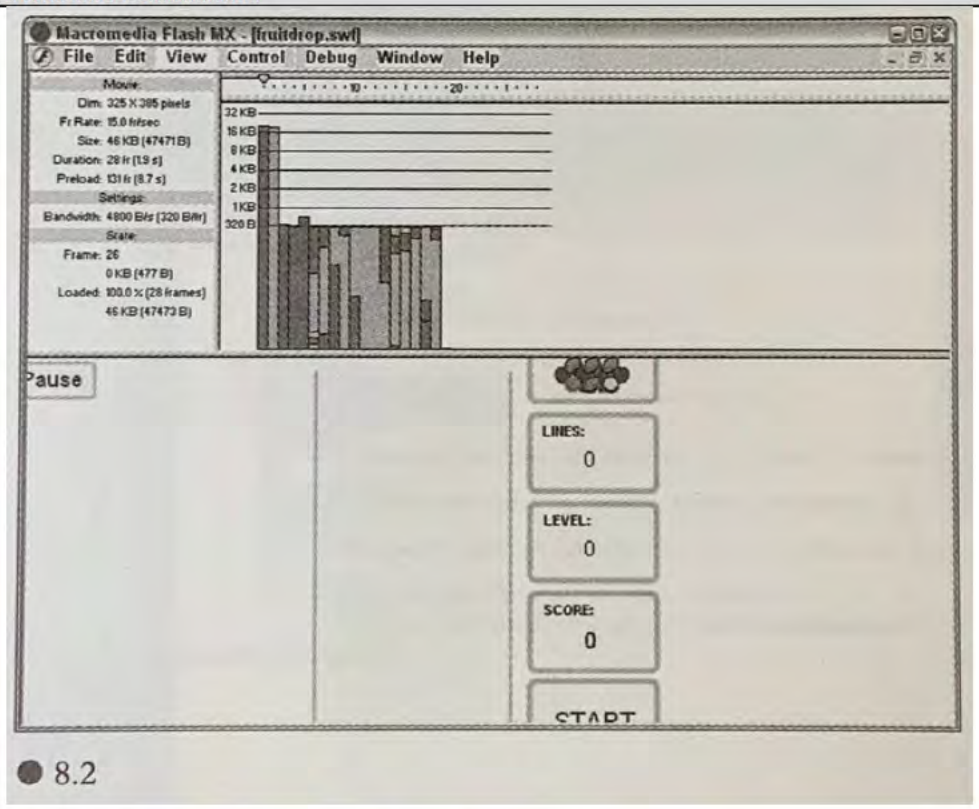
'811 Claim 22	Reference/Combination
	Screenshot of Bandwidth Profiler displaying graphical images of screen usage and network usage.  Screenshot of NTT DoCoMo, Inc. i-mode HTML Simulator in a separate display showing screen and network usage. It can display simultaneously with the Bandwidth Profiler. For example, the Bandwidth Profiler in Flash MX Professional 2004 displays a bar chart of the Flash application's bandwidth utilization. [*Flash MX 2004 Using Flash*, pp. 38–39]

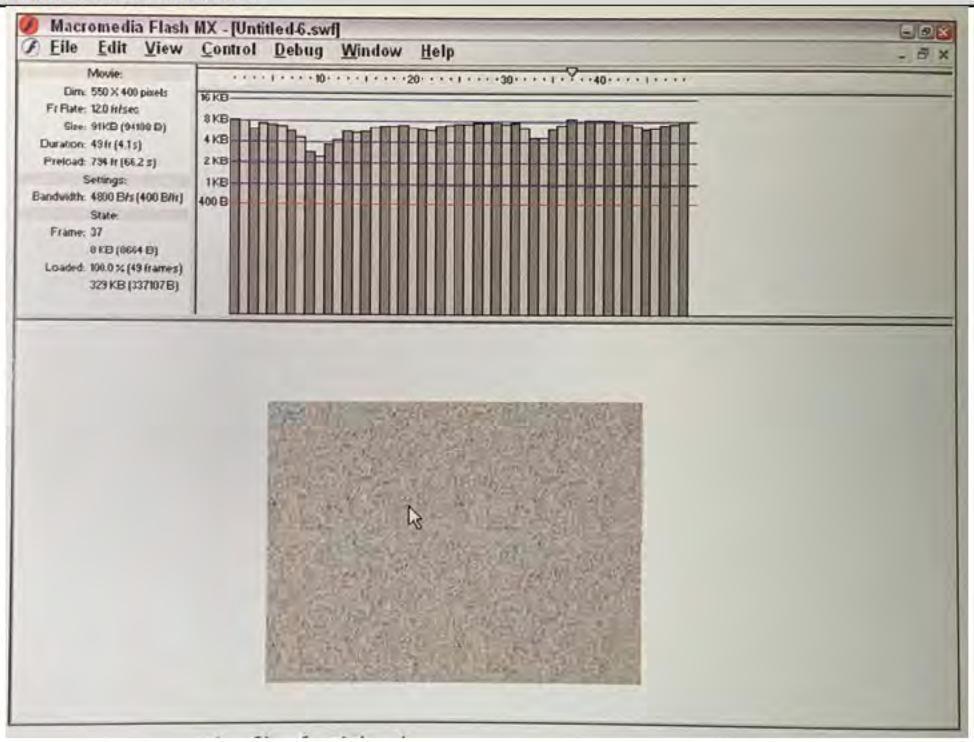
'811 Claim 22	Reference/Combination
	The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]

'811 Claim 22	Reference/Combination
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]

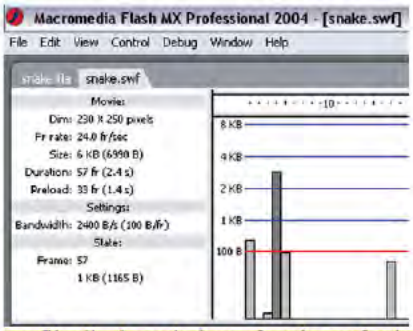
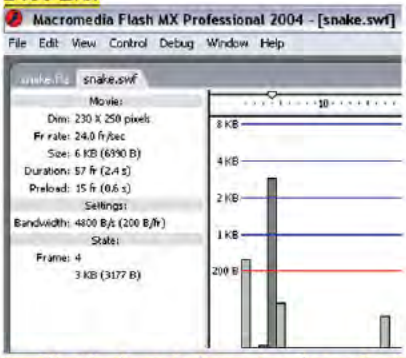
'811 Claim 22	Reference/Combination
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 22	Reference/Combination
	 [David, p. 98]

'811 Claim 22	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

'811 Claim 22	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

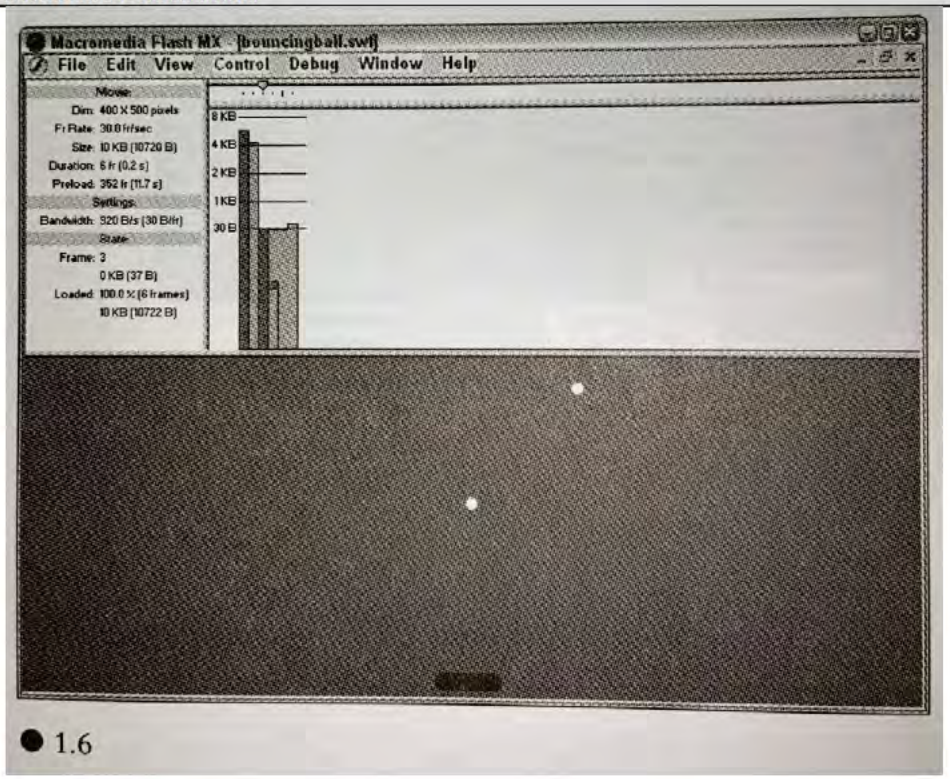
'811 Claim 22	Reference/Combination
22[e] correspond the utilization of a specific displayed resource at a given time with one or more functions of the application responsible for that utilization;	The Flash MX Professional 2004 system discloses this limitation. See disclosures for claim limitation 1[h] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.
22[f] initiate transmission of the application that is being developed to one or more physical versions of the mobile device.	The Flash MX Professional 2004 system discloses this limitation. See disclosures for claim 2 (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

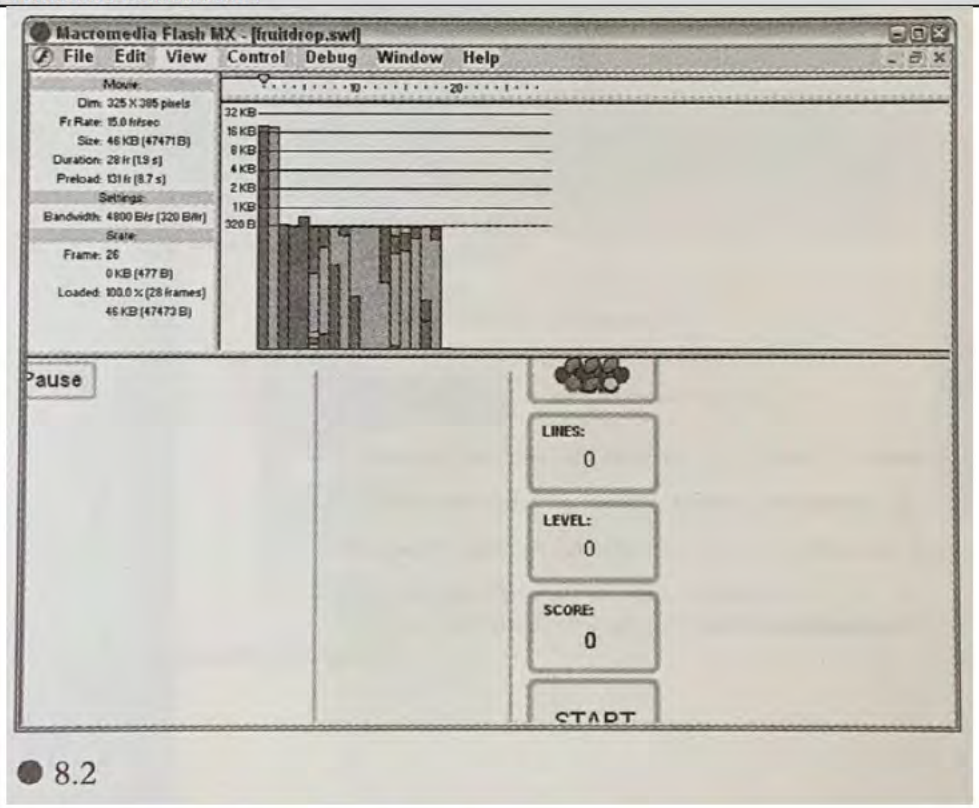
'811 Claim 24	Reference/Combination
24[a] The medium of claim 22, wherein the instructions simulate one or more characteristics, including bandwidth, indicative of a network on which the mobile device can operate.	The Flash MX Professional 2004 system discloses this limitation.  Profile display window of snake.swf using download simulator at 28.8 kbps, which simulates Bandwidth at 2400 B/s.  Profile display window of snake.swf using download simulator at 56 kbps, which simulates Bandwidth at 4800 B/s. Screenshots above from the Flash MX Professional 2004 emulator show two different configurations to simulate characteristics including bandwidth.

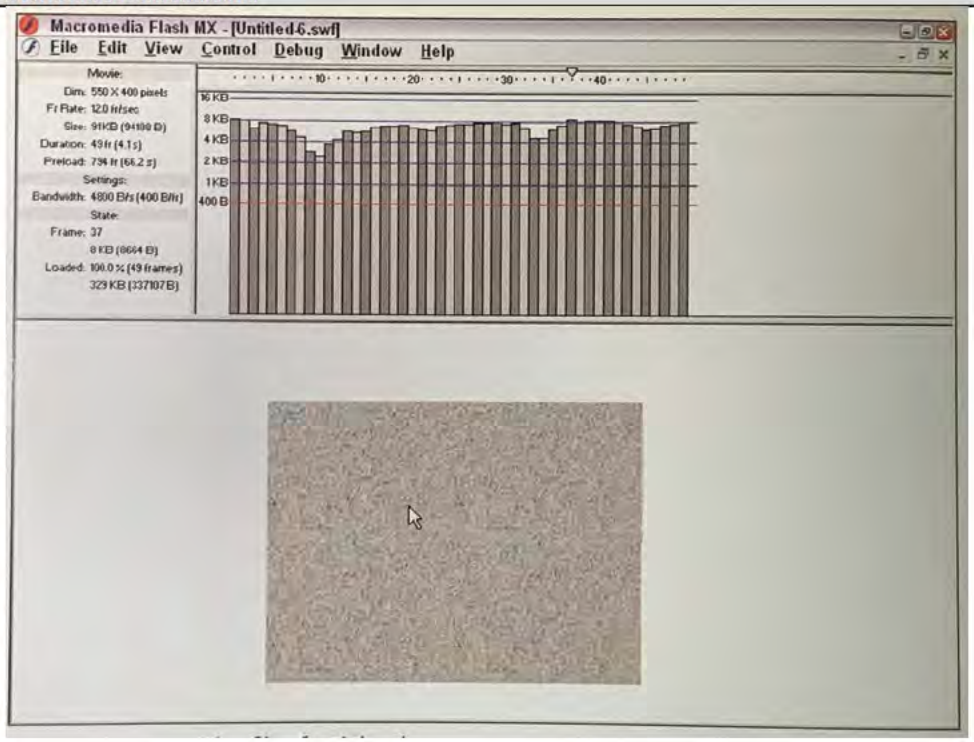
'811 Claim 24	Reference/Combination
	For example, the Bandwidth Profiler in Flash MX Professional 2004 simulates bandwidth indicative of a network on which the mobile device can operate. [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶]

'811 Claim 24	Reference/Combination
	To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶]

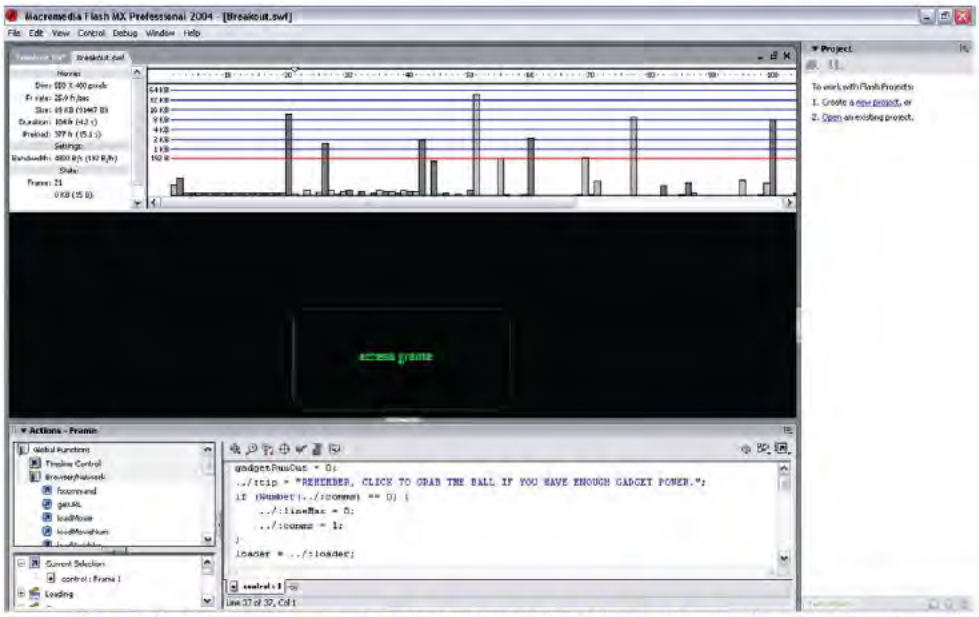
'811 Claim 24	Reference/Combination
	Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶] To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

'811 Claim 24	Reference/Combination
	 [David, p. 98]

'811 Claim 24	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

'811 Claim 24	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

'811 Claim 24	Reference/Combination

'811 Claim 26	Reference/Combination
26[a] The medium of claim 24, wherein the instructions simulate one or more network events that occur when interacting with a wireless network, wherein a user can create scripts to emulate actions of real user behavior to determine the performance of the application, or the network, or both.	The Flash MX Professional 2004 system discloses this limitation. For example, Flash MX Professional 2004 simulates one or more network events that occur when interacting with a wireless network. See disclosures for claim limitation 8[a] (hereby incorporated by reference). In addition, for example, Flash MX Professional 2004 allows a user to create scripts to emulate actions of real user behavior to determine the performance of the application, or the network, or both.  Screenshot of Flash MX Professional 2004 Bandwidth Profiler interface with "Actions – Frame" window enabling creating ActionScript scripts within the Flash application.

'811 Claim 26	Reference/Combination
	For example, the manual discloses that Flash MX Professional 2004 supports creating ActionScript (scripts). [*Flash MX 2004 Using Flash*, p. 23] Working with scenes [¶] To organize a document thematically, you can use scenes. For example, you might use separate scenes for an introduction, a loading message, and credits. [¶] Note: You cannot use scenes in a screen-based document. For information on screens, see Chapter 12, "Working with Screens (Flash Professional Only)," on page 197. [¶] When you publish a Flash document that contains more than one scene, the scenes in the document play back in the order they are listed in the Scene panel in the Flash document. Frames in the document are numbered consecutively through scenes. For example, if a document contains two scenes with ten frames each, the frames in Scene 2 are numbered 11–20. [¶] You can add, delete, duplicate, rename, and change the order of scenes. [¶] To stop or pause a document after each scene, or to let users navigate the document in a nonlinear fashion, you use actions. See "ActionScript Basics" in ActionScript Reference Guide Help. [¶] To display the Scene panel: • Select Window > Design Panels > Scene. [¶] To view a particular scene: • Select View > Go To and then select the name of the scene from the submenu. [¶] To add a scene, do one of the following: • Click the Add Scene button in the Scene panel. • Select Insert > Scene.

'811 Claim 26	Reference/Combination
	ActionScript adds complex interactivity, playback control, and data display, and can store and retrieve information, and thereby can emulate actions of real user behavior to determine the performance of the application. ActionScript also has networking capabilities, such as by calling loadMovie and getUrl, so it can also determine the performance of the network. [*Flash MX 2004 Using Flash*, p. 18] ActionScript is the Flash scripting language that enables you to add complex interactivity, playback control, and data display to a Flash document. You can add ActionScript within the Flash authoring environment using the Actions panel, or create external ActionScript files using an external editor. [¶] You don't need to understand every ActionScript element to begin scripting; if you have a clear goal, you can start building scripts with simple actions. You can incorporate new elements of the language as you learn them to accomplish more complicated tasks. [¶] Like other scripting languages, ActionScript follows its own rules of syntax, reserves keywords, provides operators, and allows you to use variables to store and retrieve information. ActionScript includes built-in objects and functions and allows you to create your own objects and functions. For more information on ActionScript, see "ActionScript Basics" in ActionScript Reference Guide Help. [*Flash MX 2004 Using Flash*, p. 38] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. As another example, the Bandwidth Profiler can run a scripted simulation of a download, thereby creating a script to emulate a download action (emulate actions of real user behavior) to determine the performance of the application and the network. [*Flash MX 2004 Using Flash*, pp. 38–39]

'811 Claim 26	Reference/Combination
	The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]

'811 Claim 26	Reference/Combination
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]

'811 Claim 26	Reference/Combination
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

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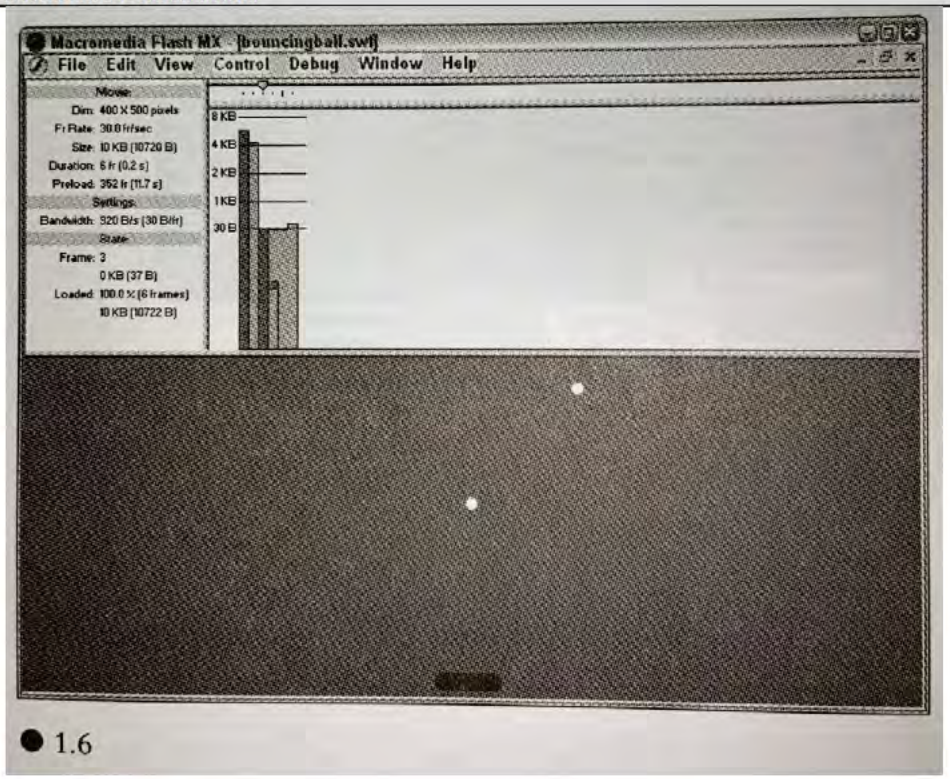
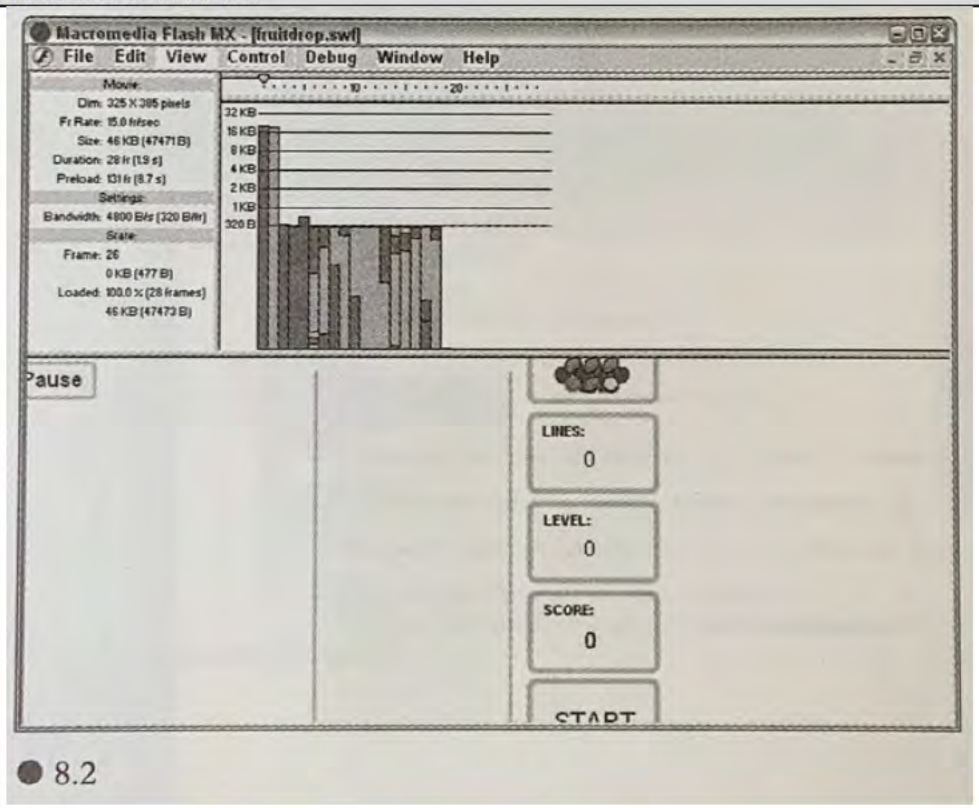
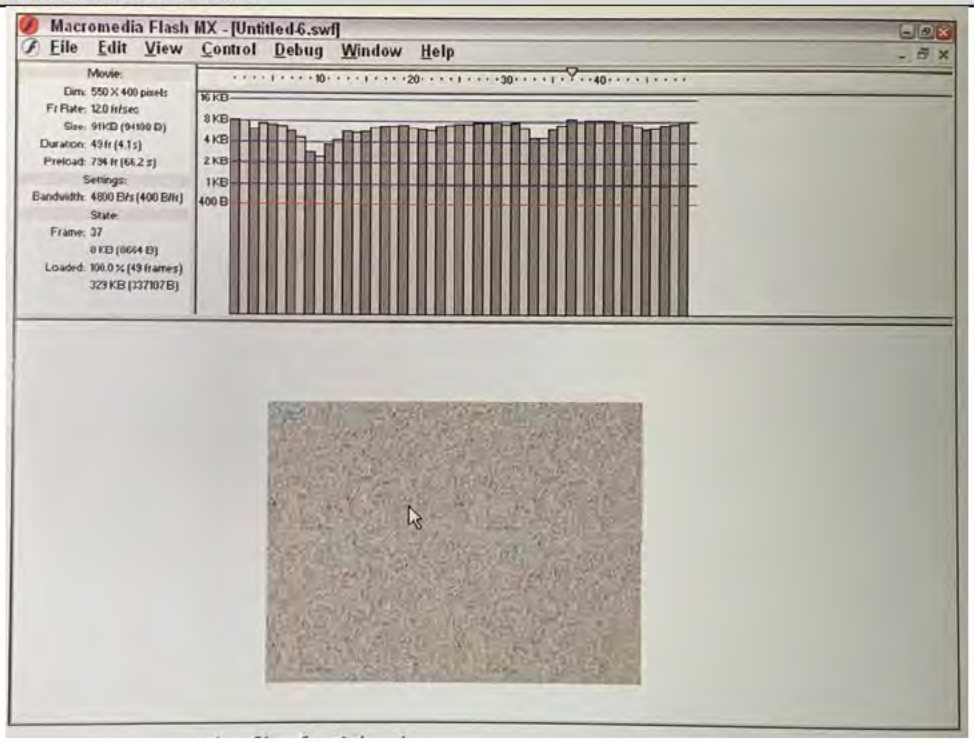
	 [David, p. 98]

'811 Claim 26	Reference/Combination
	 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

'811 Claim 26	Reference/Combination
	 To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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